

Team *supercalifragilisticexpialidocious*

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Soft Dev pd8

Task the Toid: A Better Plan

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STOCK OVERFLOW

OVERVIEW

Stock Overflow is a website focusing on investment and financing education. Users will be able to read articles relevant to the financial world and view information on a wide range of stocks. If the user is interested in certain stocks and wants to keep track of them, they may add them to their watchlist. Users will also be able to take part in a simulation game where they have an initial buying power of \$100,000. With that money, they will be able to purchase or sell stocks.

DATABASE SCHEMA

User Information

| Column | User | Password |
|-----------|------------------|----------|
| Data Type | Text primary key | Text |

Portfolio

| Column | User | Account Value | Buying Power | Cash | Annual Return |
|-----------|------------------|---------------|--------------|-------|---------------|
| Data Type | Text primary key | Float | Float | Float | Float |

User Stocks - Holds User and the stock that the user invests in

| | User | Stock Name | Number of stocks | Price Paid | Dup |
|-----------|------|------------|------------------|------------|---------|
| Data Type | Text | Text | Integer | Float | Integer |

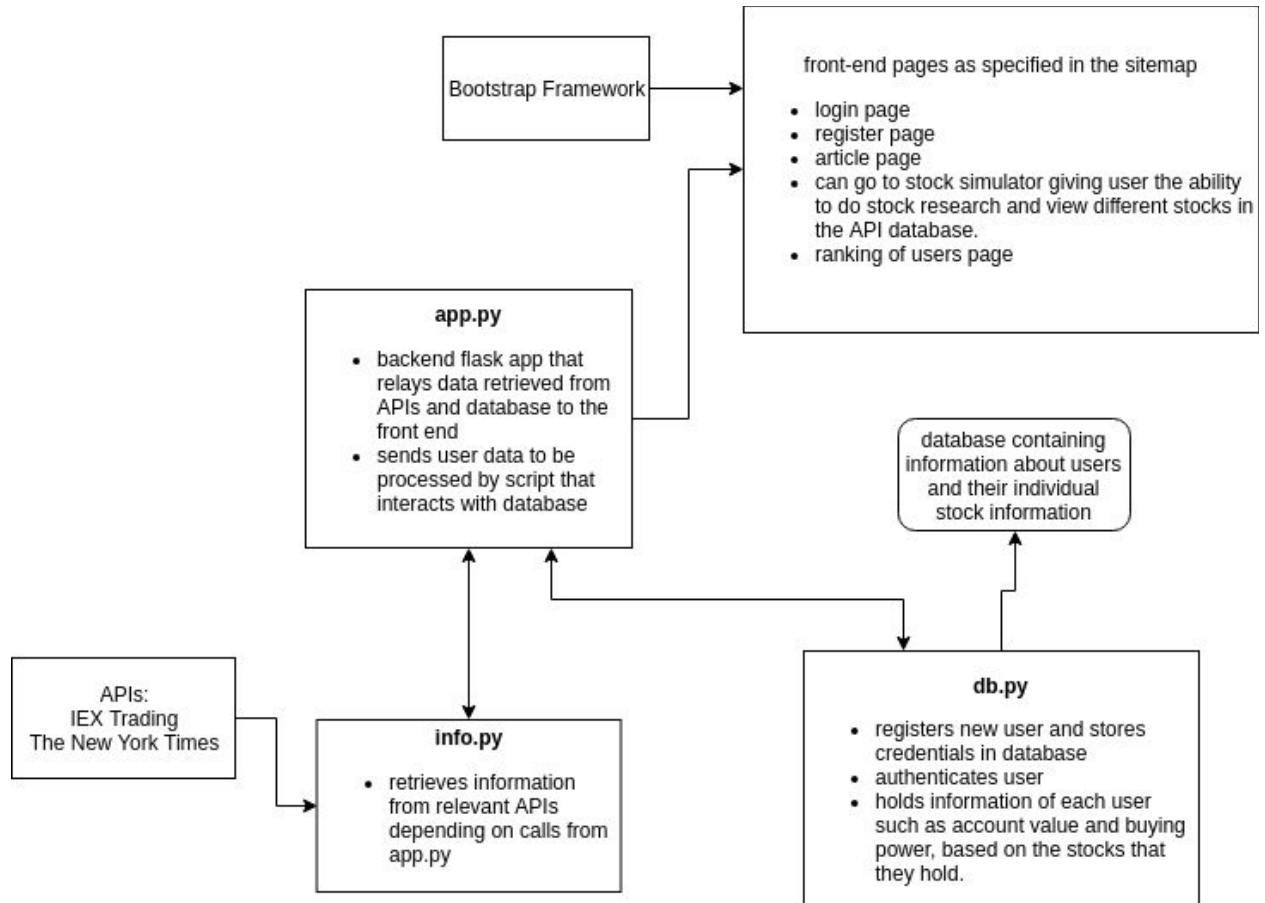
WatchList - Holds a user and the stock that the user adds to watchlist

| | User | Stock Name |
|-----------|------------------|------------|
| Data Type | Text Primary Key | Text |

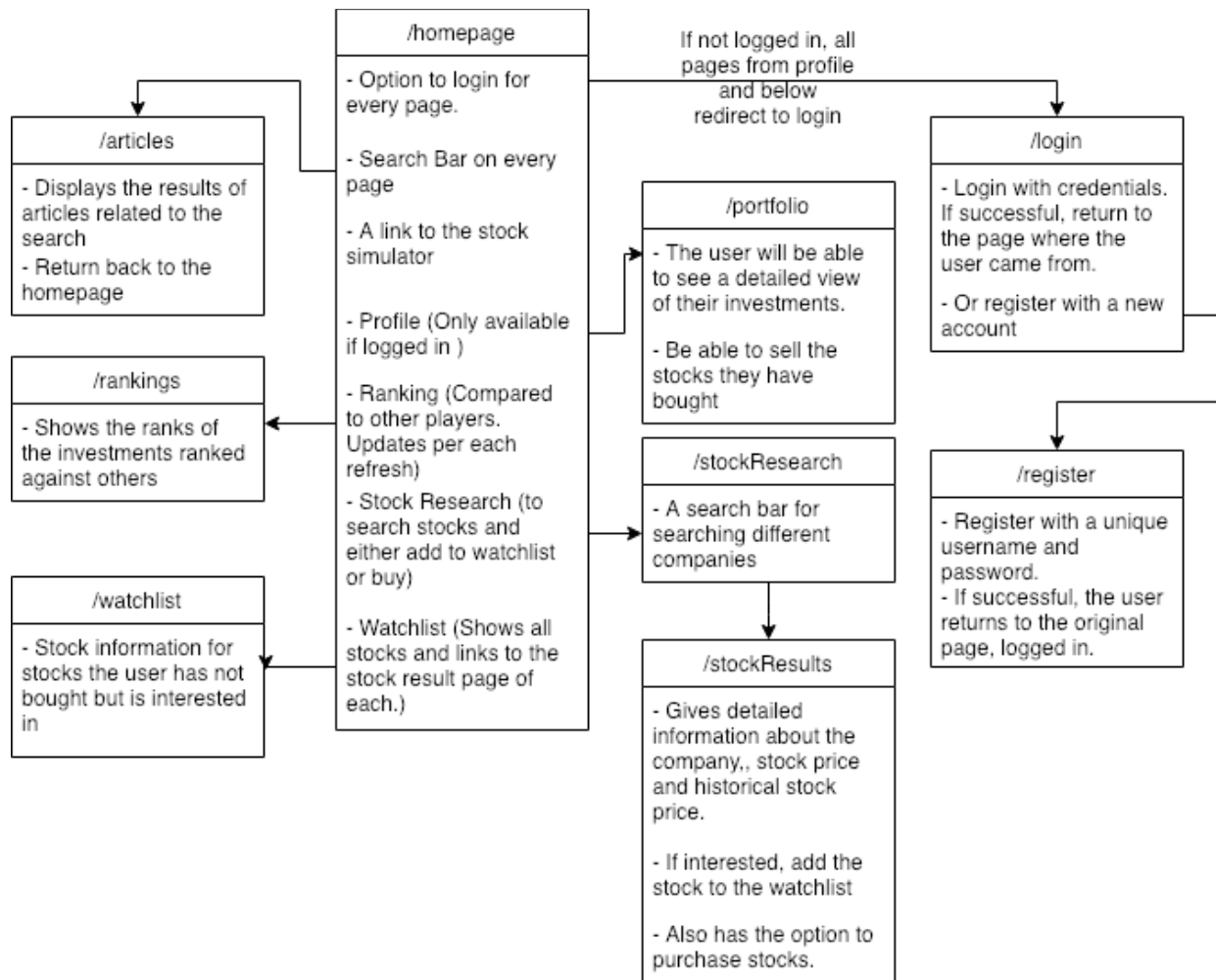
Front End Framework: Bootstrap

- Bootstrap allows for a clean and adaptive layout that can handle changes to be made.
- Reliability since the team is more familiar with Bootstrap than Foundation.

COMPONENT MAP



SITE MAP



Explanation of Database, Component Map, and Sitemap

1. If a user is not logged in, they can only access the homepage, articles, login page, and register page.
2. When a user registers, they will have access to their portfolio, stock research, watchlist and rankings.
3. Anywhere in the website, the user can search for a specific article topic.
4. When the user searches a stock, they are directed to the stock information page, the current stock price, historical stock data. The options to add the stock to their watchlist and buy any amount of stocks.
5. Rankings will have all the users and the stock information account balances refresh when the user refreshes the page.
6. All pages will have a nav bar that links to the search bar for articles, home, the stock simulator pages and the login/ register and logout.
7. Dup in the database user_stocks is for duplicate buys that the user has. It is used for removing only one of the duplicates.

APIs

- [IEX Trading](#) → provides extensive information on stock highs/lows and information of multiple days.
- [New York Times API](#) → provides an vast database of articles to use to display to the user.

TO-DO LIST

1. Create the design document
2. Create article pages
3. Create stock information pages
4. Create user sign in and sign up pages
5. Create user databases
6. Create user watchlist
7. Create simulation databases
8. Update portfolios based on user activity

ROLES

Project Manager - Soojin Choi

- Make sure the group is consistently working on the project
- Handle coding tasks as necessary for both backend and front end.
- Update and maintain the design document
- Make sure that the group is adhering to the design document
- Update and maintain the devlog

Database / Backend Technicians - Shin Bamba / Hasif Ahmed

- Create database system following the data schema outlined above in sqlite3
- Create functionality to access, add and modify the database
- Make the database compatible and accessible with the frontend in app.py

Frontend Technicians - Tania Cao

- Construct HTML web pages that will process user input in the backend
- Render the web pages when requests are sent
- Make the frontend compatible with the backend with jinja3 for flask functionality